

Listing of Claims

The following listing of claims replaces all previous versions, and listings, of claims in the present application.

Please amend the claims as follows:

1. (Currently Amended) A solar sensor comprising:

a housing;

a pair of optical devices respectively disposed on a right side and a left side of an axis parallel to a direction of travel of a vehicle on a top side of the housing;

a concave optical lens that is disposed above the optical devices and guides incident light toward the optical devices; and

a lens member that is disposed between the optical devices and the concave optical lens,

wherein the lens member comprises a pair of projections each defining a peak, the pair of projections for respectively guiding the incident light to the pair of optical devices, and wherein the peaks of the pair of projections are respectively disposed above the pair of optical devices and substantially in a space defined by a concavity of the concave optical lens.

2. (Previously Presented) The solar sensor as in claim 1, wherein a first clearance between the concave optical lens and each of the pair of projections in the direction of travel of a vehicle is greater than a second clearance between the concave optical lens and the pair of projections in a direction perpendicular to the direction of travel on a horizontal plane.

3. (Canceled)

4. (Previously Presented) The solar sensor as in claim 1, wherein each of the pair of projections has a solid structure.

5. (Previously Presented) The solar sensor as in claim 1, wherein each of the pair of projections has a hollow structure.

6. (Previously Presented) The solar sensor as in claim 1, wherein a surface of the lens member facing the optical lens is coated with a screen film except on an area under the pair of optical projections.

7. (Previously Presented) The solar sensor as in claim 1, wherein the housing includes a cantilever hook for fastening the housing to a vehicle panel.

8. (Previously Presented) The solar sensor as in claim 1, wherein the pair of projections is further for enabling a total output of the pair of optical devices to be substantially constant irrespective of a solar azimuth angle.

9. (Previously Presented) The solar sensor as in claim 1, wherein the pair of projections is further for enabling a first total output of the pair of optical devices when light is received from the front side to be substantially equal to a second total output of the pair of optical devices when light is received from the right or left side.

10. (Previously Presented) The solar sensor as in claim 1, wherein the optical devices are disposed substantially on a common plane.

11. (New) The solar sensor as in claim 1, wherein the peaks of the pair of projections are coincident with respective centers of the optical devices.

12. (New) The solar sensor as in claim 1, wherein the peaks of the pair of projections are coincident with respective centers of the pair of projections.

13. (New) The solar sensor as in claim 1, wherein the peaks of the pair of projections are coincident with respective centers of the optical devices and with respective centers of the pair of projections.

14. (New) The solar sensor as in claim 1, wherein each of the pair of projections is hemispheric in shape.

15. (New) The solar sensor as in claim 14, wherein the peaks of the pair of projections are coincident with respective centers of the optical devices.

16. (New) The solar sensor as in claim 14, wherein the peaks of the pair of projections are coincident with respective centers of the pair of projections.

17. (New) The solar sensor as in claim 14, wherein the peaks of the pair of projections are coincident with respective centers of the optical devices and with respective centers of the pair of projections.